Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 1 of 14

FIG. 1

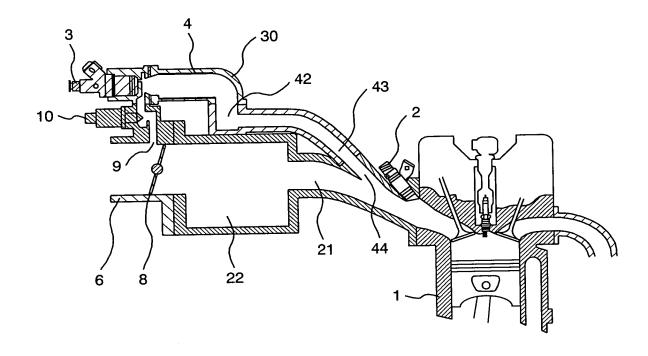
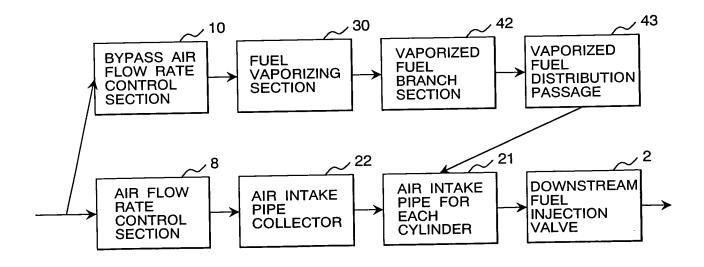


FIG. 2



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 2 of 14

FIG. 3

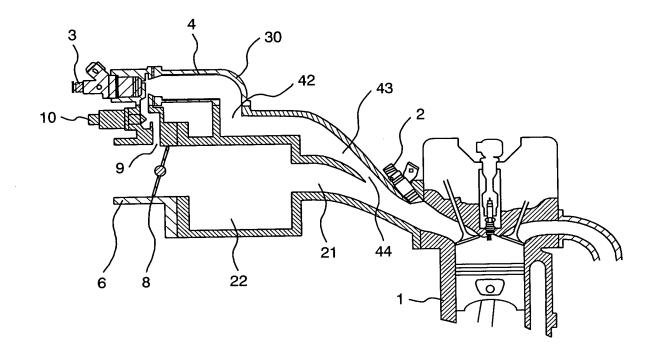
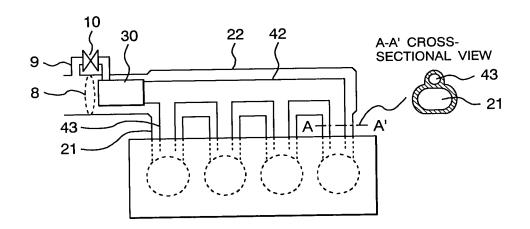
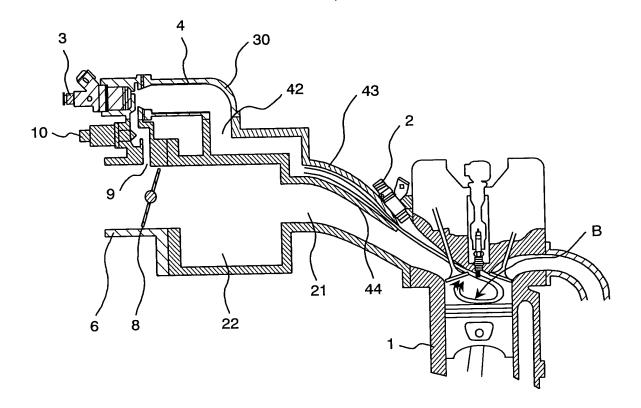


FIG. 4



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 3 of 14

3/14



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 4 of 14

4/14

#### FIG. 6

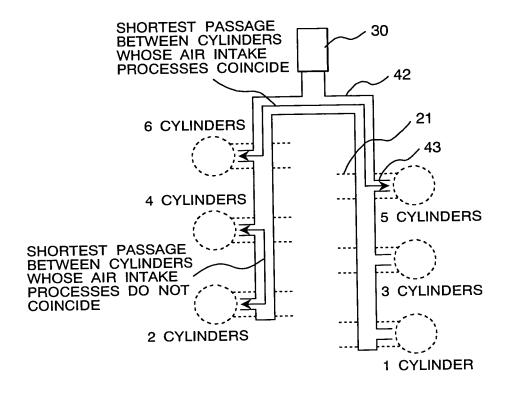
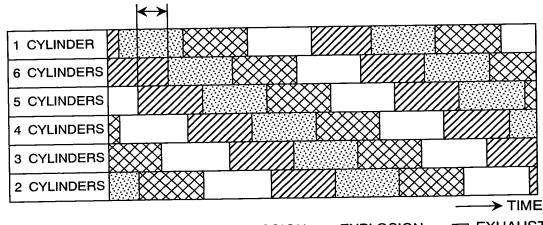


FIG. 7

PERIOD WHEN AIR INTAKE PROCESSES COINCIDE



AIR INTAKE PROCESS

PROCESS



**EXHAUST PROCESS** 

Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 5 of 14

FIG. 8

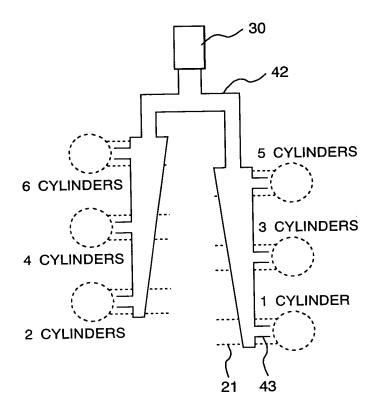
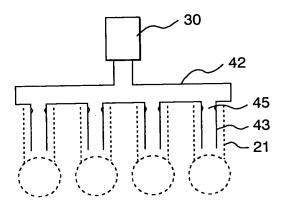


FIG. 9



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 6 of 14

6/14

#### FIG. 10

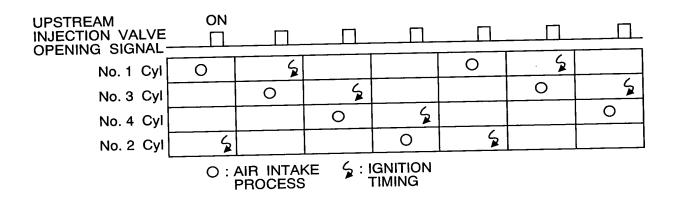
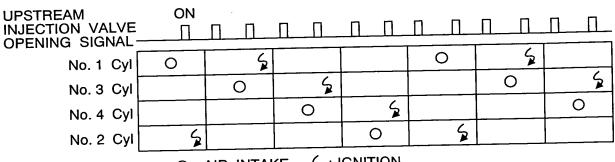


FIG. 11



O : AIR INTAKE S : IGNITION TIMING

Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 7 of 14

7/14

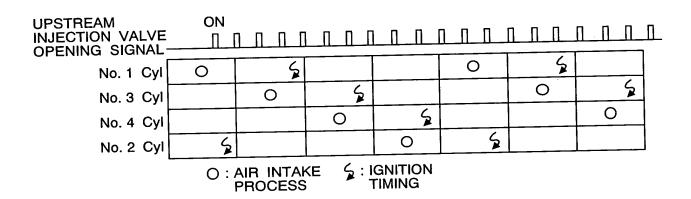
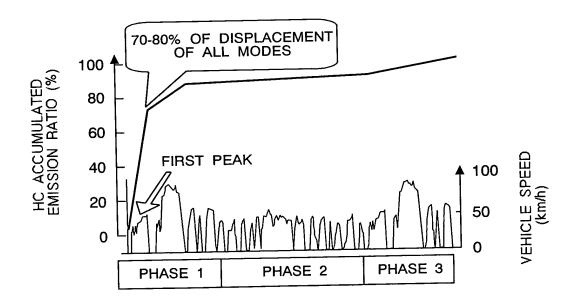
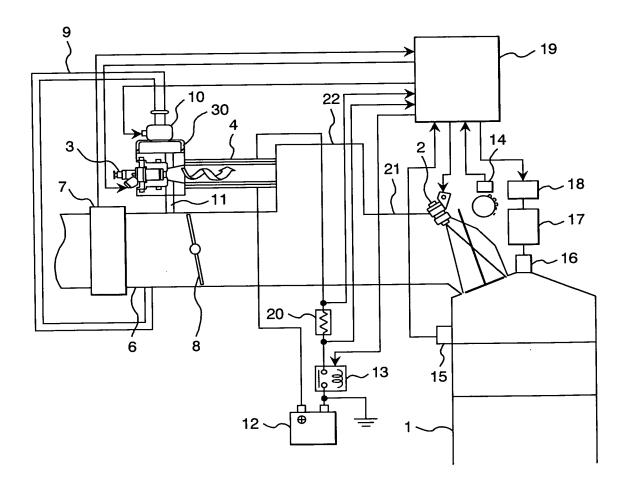


FIG. 13



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 8 of 14

FIG. 14



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 9 of 14

9/14

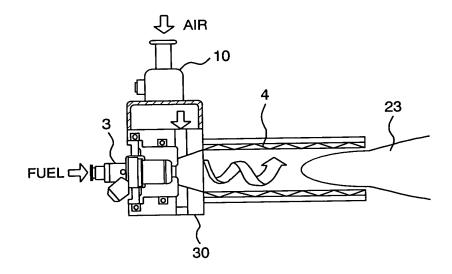
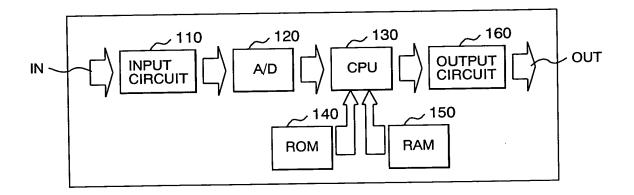


FIG. 16



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 10 of 14

FIG. 17

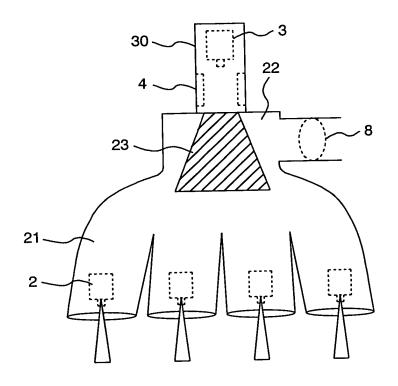
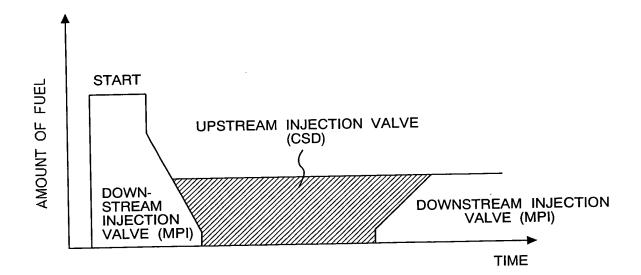


FIG. 18



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 11 of 14

FIG. 19

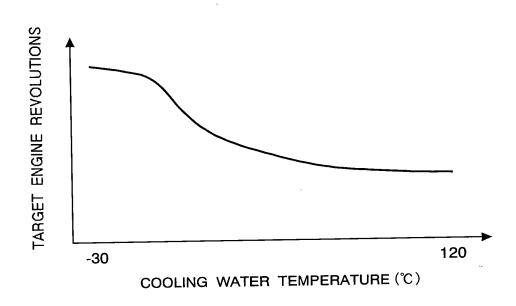
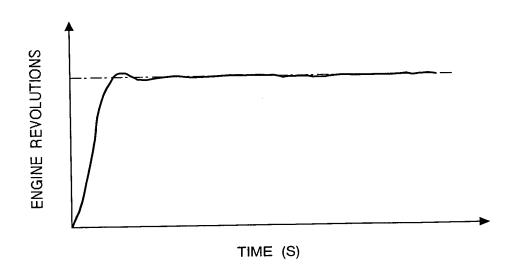


FIG. 20



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 12 of 14

FIG. 21

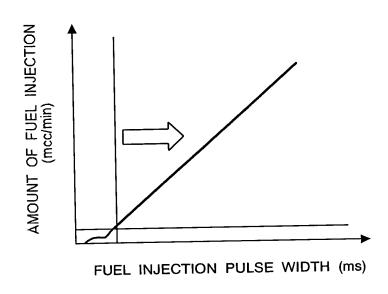
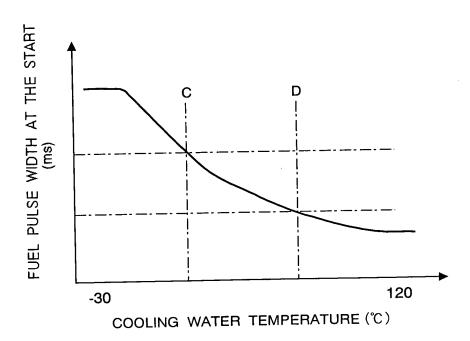


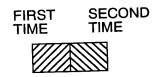
FIG. 22



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 13 of 14

13/14

FIG. 23



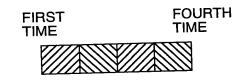
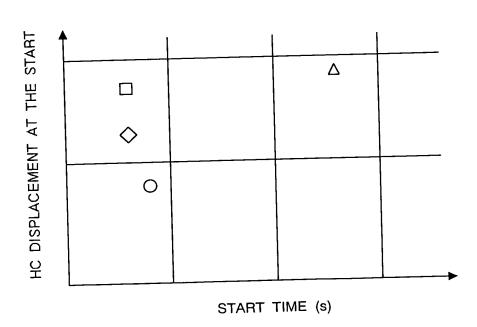


FIG. 25



Attorney Docket No. 056208.52824US Filed: October 9, 2003 Sheet 14 of 14 14/14

FIG. 26

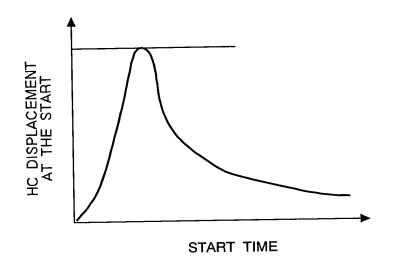


FIG. 27

